



County of San Bernardino Department of Public Health DIVISION OF ENVIRONMENTAL HEALTH SERVICES

VECTOR CONTROL PROGRAM (909) 388-4600



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## Ants

## REACTIONS TREATMENT

LOCAL

or cold

paste

compresses

Apply baking

**SYSTEMIC** 

soda and water

See physician for

proper treatment

· Wash sites with

soap and water

Apply ice packs



#### **IMMEDIATE**

Fierce burning pain lasting minutes

#### LOCAL

(fire ants)

Minutes - Wheal formation

- 2-4 hours Clear fluid-filled vesicles
- 8-10 hours Cloudy fluid-filled vesicles
- 12-24 hours Umbilicated pustules on a red base, with pain and tenderness
- 3-8 days Lesions resolve; may leave scars

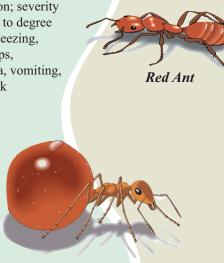
#### **SYSTEMIC**

Due to allergic sensitization; severity and speed of onset related to degree of sensitivity. May see wheezing, urticaria, abdominal cramps, generalized edema, nausea, vomiting, dizziness, confusion, shock

### ANAPHYLAXIS AND DEATHS

Rare, but reported

Honey Ant



## Black Widow Spider

### **REACTIONS**

### **TREATMENT**



#### **IMMEDIATE**

Pinprick sensation from bite

#### **LOCAL**

Dull, numbing pain; two red puncture marks at bite site. Pain peaks at 1-3 hours and persists 12-48 hours

#### REGIONAL

- Severe muscle pain and spasm
- Rigid board-like abdomen
- Tightness in chest and pain on inspiration

#### **GENERAL**

- Rigidity and spasm of all large muscle groups; excruciating abdominal pain
- Convulsions, paralysis
- Shock

#### DEATHS

4-5% of untreated cases due to neurotoxic effect of venom



#### LOCAL FIRST AID

Ineffective and unnecessary

#### **SYSTEMIC**

See physician for proper treatment



Black Widow Spider Centipedes

REACTIONS TREATMENT



#### **IMMEDIATE**

Pain, often intense

#### **LOCAL**

1-4 hours - A twopuncture wound at the site with redness, swelling and a burning, aching pain that subsides in 4-5 hours

#### REGIONAL

Rare - Purpura of an entire limb

## ANAPHYLAXIS AND DEATH

None reported in the United States



Centipede

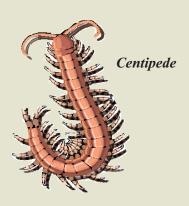


#### **LOCAL FIRST AID**

Wash with soap and ate Apply ammonia in 10% solution Apply cool, wet dressings of a saturated magnesium

# sulfate solution **SYSTEMIC**

Analgesics for pain





Centipede

## Scorpions

### **REACTIONS**

## **TREATMENT**



#### **IMMEDIATE**

Severe sharp pain

#### LOCAL

- Dangerous neurotoxic species
- Pins-and-needles sensation with **no** local swelling or discoloration (found in Arizona only)
- Comparatively harmless species (not neurotoxic) - Local swelling and discoloration at sting site

### **SYSTEMIC**

Neurotoxic species only - within 1-3 hours

- Hypoesthesia and numbness or drowsiness
- Itching of nose and throat
- Impaired speech and tightness of jaw muscles
- Restlessness and muscle twitching
- Muscle spasm with pain, nausea, vomiting, incontinence, convulsions
- Respiratory and/or circulatory distress

#### **ANAPHYLAXIS**

Rare, but reported with nonneurotoxic species

#### **DEATHS**

Occasional; due to neurotoxic species



#### LOCAL FIRST AID

- Apply ice packs
- Apply tourniquet if possible and as near sting site as possible. Loosen briefly every10-15 minutes

**WARNING:** Do not use morphine or opiates since they increase toxic effects

### **SYSTEMIC**

See physician for proper treatment



Scorpion

## Brown Recluse Spider

REACTIONS TREATMENT



#### **IMMEDIATE**

Very little pain, if any

#### LOCAL

- 2-8 hours Mild to severe pain with redness and vesiculation at bite site, followed by ischemia
- 3-4 days Star-shaped firm area of deep-purple color with necrosis
- 7-14 days Central area of depression and ulceration
- 21 days Healing and sear formation. May not heal sufficiently and may require skin grafting

#### **SYSTEMIC**

- \* Fever, chills, nausea, vomiting, weakness, joint pain
- \* Morbilliform or petechial generalized eruption
- \* Occasionally serious hematological disturbances hemolytic anemia, thrombocytopenia

#### **DEATHS**

Reported; usually in children, due to renal failure and hematological abnormalities



#### **LOCAL FIRST AID**

Ineffective and unnecessary

#### **SYSTEMIC**

See physician for proper treatment



## Urticating Caterpillars

REACTIONS

### **TREATMENT**



#### **IMMEDIATE**

Severe burning pain

#### LOCAL

- Numbness and swelling of area inflicted with severe radiating pain
- Possible double row of parallel red puncture marks forming a grid-like tract along the path of the caterpillar
- Swelling of regional lymph glands
- Late foreign-body reaction to unremoved spines

#### **SYSTEMIC**

- Nausea, vomiting, fever
- · Headaches.
- Shock and convulsions *(rare)*

#### **DEATHS**

None reported

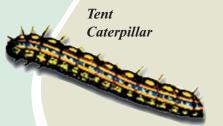


### LOCAL FIRST AID

- Repeated stripping using adhesive or cellophane tape to remove spines
- Apply ice packs
- Apply baking soda-andwater paste

#### SYSTEMIC

See physician for proper treatment



## Ticks\*

## **REACTIONS**

### **TREATMENT**



#### **IMMEDIATE**

Mild itch to severe allergic reaction

#### LOCAL

- Red swelling at point of bite
- Potentially fatal from tick paralysis
- Numbness of lower limbs, continuing to upper body regions within hours

#### **SYSTEMIC**

• Tick granuloma (tumor) may occur days or months after bite

#### **DEATHS**

Rare



#### LOCAL FIRST AID

- Remove tick by grasping the mouthparts close to the attachment point with forceps or tweezers and slowly removing the tick.
- Apply ice pack

#### **SYSTEMIC**

See physician for treatment of these symptoms of diseases transmitted by ticks



\*Seven (7) species occur within our local area

## True Bugs

## REACTIONS TREATMENT



#### **IMMEDIATE**

Usually no sensation, occasionally mild pain

#### LOCAL

Four distinct reactions depending on degree of sensitivity

- Papule with a central punctum
- Small vesicles grouped around bite site with swelling and little redness
- Giant urticarial lesion with central punctum and surrounding brawny edema on hands and feet the characteristic "kissing bug bites"

## ANAPHYLACTIC SHOCK

Rare, but reported

#### **DEATHS**

None reported





#### LOCAL

Wash with soap and water

#### **SYSTEMIC**

Oral antihistamines



Assassin bug

## Bees and Wasps

### **REACTIONS**

### **TREATMENT**



#### **IMMEDIATE**

Pain

#### LOCAL

Within 1-4 hours – Appearance and subsidence of wheal and red flare; may see intense local swelling in region of sting

#### **SYSTEMIC**

- Mild reaction Generalized urticaria, itching, malaise, anxiety
- Moderate reaction Any of the above plus generalized edema, tightness in the chest, wheezing, abdominal pain, nausea, vomiting, dizziness
- Severe reaction Any of the above plus labored breathing, difficulty in swallowing, hoarseness or thickened speech, marked weakness, confusion, feeling of impending disaster
- Shock Cyanosis, fall in blood pressure, collapse, incontinence, unconsciousness
- Delayed serum-sickness-like reaction (10-14 days after sting)
  Fever, lymphadenopathy, malaise, headache, urticaria, polyarthritis, renal dysfunction

### ANAPHYLAXIS AND SUDDEN DEATH

Many cases reported, usually in adults



#### LOCAL FIRST AID

- Remove bee stinger from sting site by gently scraping with a fingernail, blade, or credit card to prevent further venom injection from attached venom sac (wasp does not lose its stinger and can sting more than once)
- Wash site with mild soap and water
- Apply ice packs or 10% ammonia solution
- Apply water and baking soda paste
- Elevate and rest involved limb

#### **SYSTEMIC**

See physician for proper treatment

### LONG-TERM MANAGEMENT

- Medic-alert tag or badge
- Emergency treatment kit and instructions for use
- Program for desensitization

